

DEPLOYMENT OF APP IN IBM CLOUD

DEPLOY IN KUBERNETES CLUSTER

1. Target the IBM Cloud Kubernetes Service region where you want to work.

```
ibmcloud cs region-set us-south
```

2. Set the context for the cluster in your CLI.

a. Get the command to set the environment variable and download the Kubernetes configuration files.

```
ibmcloud cs cluster-config cluster_kunal
```

b. Set the KUBECONFIG environment variable. Copy the output from the previous command and paste it in your terminal. The command output should look similar to the following.

```
> export  
KUBECONFIG=/Users/$USER/.bluemix/plugins/container-service/clust  
ers/<  
cluster_name >/< cluster_configuration_file.yaml>
```

3. Verify that you can connect to your cluster by listing your worker nodes.

```
kubectl get nodes
```

4. Create the deployment.

```
kubectl create -f deployment.yaml
```

5. Create the service.

```
kubectl create -f service.yaml
```

6. Look at the Kubernetes dashboard from the IBM Kubernetes Service overview page.

kubernetes

+ CREATE

Overview

Cluster
Namespaces
Nodes
Persistent Volumes
Roles
Storage Classes

Namespace
default
Overview
Workloads
Cron Jobs
Daemon Sets
Deployments
Jobs
Pods
Replica Sets
Replication Controllers
Stateful Sets
Discovery and Load Balancing
Ingresses
Services
Config and Storage
Config Maps

Deployments

| Name | Labels | Pods | Age | Images |
|-----------------------|----------------|-------|-----------|--|
| flask-node-deployment | app: flasknode | 1 / 1 | 5 minutes | registry.ng.bluemix.net/flask-node/app |

Pods

| Name | Node | Status | Restarts | Age | CPU (cores) | Memory (bytes) |
|--|--------------|---------|----------|-----------|-------------|----------------|
| flask-node-deployment-5cd96cf6bc-d6n6x | 10.47.79.201 | Running | 0 | 5 minutes | 0 | 19.352 Mi |

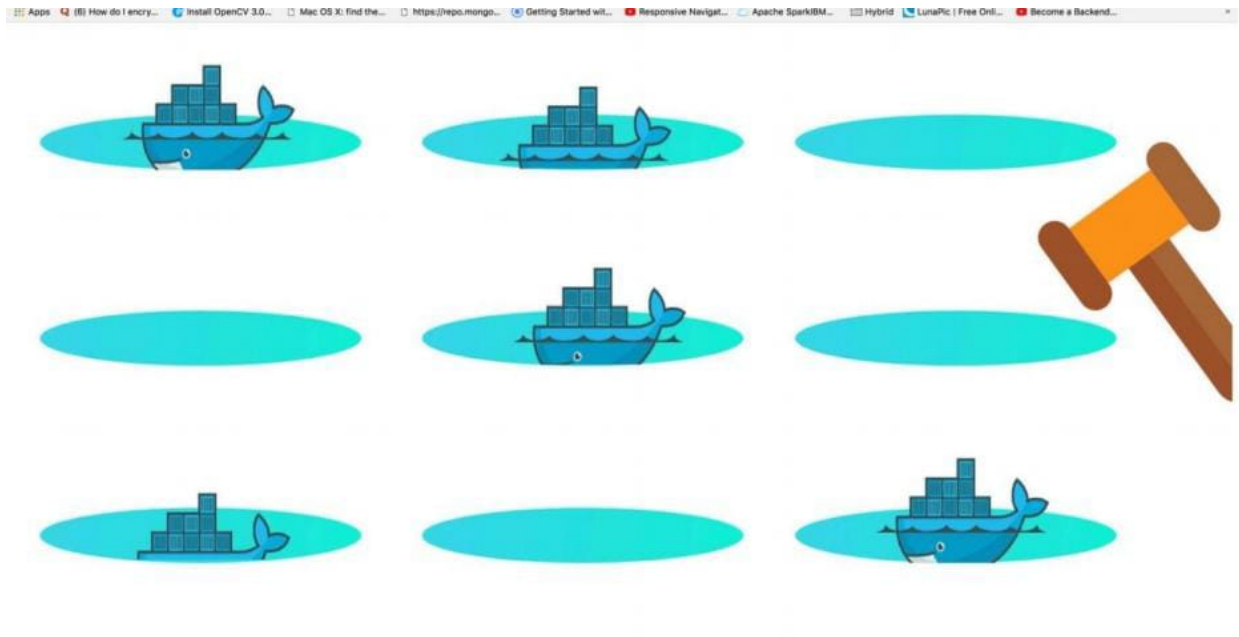
Replica Sets

| Name | Labels | Pods | Age | Images |
|----------------------------------|---|-------|-----------|--|
| flask-node-deployment-5cd96cf6bc | app: flasknode pod-template-hash: 1785279267 | 1 / 1 | 5 minutes | registry.ng.bluemix.net/flask-node/app |

Services

| Name | Labels | Cluster IP | Internal endpoints | External endpoints | Age |
|-----------------------|--|---------------|---|--------------------|----------|
| kubernetes | component: apiserver provider: kubernetes | 172.21.0.1 | kubernetes:443 TCP kubernetes:0 TCP | - | a minute |
| flask-node-deployment | - | 172.21.104.14 | flask-node-deployment:5000 TCP flask-node-deployment:0 TCP | - | a minute |

7. Finally, go to your browser and ping the Public IP of your worker node



SAMPLE:

^^^

```
$ kubectl apply -f ./deploys/k8s-deployment/deployment.yaml
deployment.apps/k8s-nginx-deployment created
```

^^^

RUN THE APPLICATION

^^^

```
$ kubectl port-forward svc/k8s-nginx-deployment 8080:80
```

^^^

VERIFY THE APPLICATION RUNNING IN THE CLUSTER

...

\$ kubectl get pods

| NAME | READY | STATUS | RESTARTS | AGE |
|---------------------------------------|-------|---------|----------|-----|
| k8s-nginx-deployment-68d8f8f8f4-f4x6x | 1/1 | Running | 0 | 30s |

...

...

\$ curl localhost:8080

<!DOCTYPE html>

<html>

<head>

<title>Welcome to nginx!</title>

<style>

body {

width: 35em;

margin: 0 auto;

font-family: Tahoma, Verdana, Arial